URBAN DISTRICT COUNCIL

ANNUAL REPORT

of

The Medical Officer of Health

for 1949

BRIGHTLINGSEA :
PRINTED BY R. J. OSBORN, SYDNEY STREET.

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Brightlingsea Urban District Council.

Annual Report of the Medical Officer of Health for 1949.

Chairman : Cr. C. O. FENSOM.

Vice-Chairman : Cr. Q. R. CLARK.

Members of the Public Health Committee :

Chairman : Cr. H. G. POLLEY, J.P., C.C.

Vice- Chairman : Cr. C. O. FENSOM.

Cr. G. C. BRASTED	Cr. J. M. FINN
Cr. Q. R. CLARK	Cr. I. C. OSBORN

Brightlingsea and Tendring Shell Fish Committee.

Brightlingsea Representatives.	Tendring Representatives.
Cr. P. R HUGGETT	Cr. A. T. ALEY
Cr. I. C. OSBORN	Cr. L. G. NEWMAN
Cr. H. WARREN	Cr. P. B. SMITH

Town Hall,
Brightlingsea,
September, 1950

To the Chairman and Members of the Brightlingsea Urban District Council.

Ladies and Gentlemen,

I have again the honour to present the Annual Report upon the Health of your District.

The unavoidable disadvantage which is suffered by a district with a small population is shown this year in your vital statistics. With a population of 4,000 the yearly variations are greater than in an area with five times the population and may easily be misleading. For example, one infant death will represent an increase of over eleven in the infant mortality but a yearly average over five years gives a more accurate figure. (see page 3).

The outstanding features this year are

1. The high infantile mortality as compared with previous years.
2. The high crude death rate of 18·8.
3. The absence of maternal deaths.
4. For all practical purposes the absence of serious infectious disease.

In presenting the report I wish to thank the Council for their continued support and also to express my thanks for the help and co-operation of the various officers of the Council and especially the Sanitary Inspector, Mr. R. Boast.

I am, Ladies and Gentlemen,
Your obedient servant,
J. RAMSBOTTOM.

Section A.

Statistics and Social Conditions of the Area.

GENERAL STATISTICS.

Area (exclusive of water)	2,873 acres
Population (1931 Census)	4,145
Population R.G. Estimate 1949	4,472
Number of Inhabited Houses	1,635
Rateable Value	£22,261
Sum Represented by a Penny Rate	£87

EXTRACTS FROM VITAL STATISTICS.

BIRTHS.

	Male	Female	Total
Live Births—Legitimate	31	24	55
Illegitimate	2	2	4
Total Live Births	33	26	59
BIRTH RATE			13·2

STILL BIRTHS.

Still Births—Legitimate	—	—	—
Illegitimate	—	—	—
RATE per 1,000 Live and Still Births (64)			Nil

DEATHS.

Deaths	34	50	84
DEATH RATE (Crude)			18·8

DEATHS FROM DISEASES AND ACCIDENTS OF PREGNANCY AND CHILD BIRTH.

Deaths	Death Rate per 1,000 Live and Still Births
Nil	Nil

DEATHS OF INFANTS UNDER ONE YEAR OF AGE.

Deaths	3
Infantile Death Rate	50·8

An infantile death rate of 50·8 compares unfavourably with the national rate of 32 per 1,000 births. With a small population like Brightlingsea there is a liability to wide fluctuation in this figure, as for example last year the infantile death rate was nil. The average infantile mortality for Brightlingsea if taken over a number of years is very satisfactory.

DEATHS FROM MEASLES, WHOOPING COUGH AND DIARRHOEA (Under 1 year)

NIL

DEATHS FROM TUBERCULOSIS, CANCER & INFLUENZA

DISEASE	Deaths	Death Rate per 1,000 population
Tuberculosis (Pulmonary) 1 (Non-Pulmonary) 1	2	·45
Cancer	9	2·01
Influenza	1	·22
Heart Disease	32	7·17

DEATHS AT VARIOUS AGES DURING 1949.

Under 1 Year	1—2	2—5	5—15	15—25	25—35	35—45	45—55
3	0	0	0	0	2	1	7

55—65	65—75	75—85	85 and over
9	19	34	9

Below are the figures for the last five years:

Ages	1949	1948	1947	1946	1945
0—55	13	12	11	8	5
55—75	28	23	27	26	30
75 & OVER	43	36	28	28	44
	84	71	66	62	79

CAUSES OF DEATH DURING 1949

Disease	Male	Female	Total
Tuberculosis of respiratory system	1	—	1
Tuberculosis (other forms)	1	—	1
Influenza	—	1	1
Cancer	4	5	9
Diabetes	—	2	2
Intercranial Vascular Lesions	3	8	11
Heart Disease	12	20	32
Other Circulatory Disease	3	1	4
Bronchitis	2	—	2
Pneumonia	1	2	3
Digestive Diseases	—	1	1
Nephritis	3	3	6
Congential Diseases and Malformations	—	3	3
Suicide	1	—	1
Other Violent Deaths	—	1	1
All other Causes	3	3	6
	34	50	84

There were 13 more deaths in the Urban District during the year under review than last year of which heart disease accounts for 8. There is nothing noteworthy in the age distribution beyond the 3 infantile deaths which is high for Brightlingsea.

Eighty-four deaths gives a crude death rate of 18·8, this is very high but the crude death rate is misleading when used for comparison with other areas.

The age distribution of Brightlingsea is very abnormal, being largely residential, there is a high proportion of elderly persons. The tendency to death is very low from infancy to about 25 years, afterwards it steadily increases throughout life.

The Registrar General has again provided the comparability factor for each district which in the case of Brightlingsea is 0·64. Multiplying the crude death rate by this factor give the figure 12·03 which is the corrected death rate for Brightlingsea and is comparable with the national rate and also with the corrected death rate for any other area and is a fairly accurate means of assessing the health of a district. The figure of 12.0 is comparable with the national figure of 11·7.

COMPARATIVE STATISTICS.

Per 1,000 of population	Brightlingsea U.D,	Country as a whole
Birth rate	13·2	16·7
Death Rate (corrected)	12·0	11·7
Scarlet Fever Notifications	Nil	1·63
Diphtheria Notifications	Nil	·04
Per 1,000 Births		
Infantile Mortality	50·8	32·0
Maternal Mortality	Nil	0·98
Puerperal Fever and Pyrexia	16·9	6·38

The above table gives the comparison between the vital statistics for the Brightlingsea Urban District with the corresponding National figures.

BRIGHTLINGSEA U.D.

Vital statistics over the past 5 years.

Year	1949	1948	1947	1946	1945
Birth rate	13·2	13·9	22·0	17·96	18·0
Death rate (crude)	18·8	15·9	15·3	14 65	19·7
Infantile Mortality	50·8	Nil	31·91	39.47	69·4

Section B.

General Provision of Health Services

Public Health Officers of the Brightlingsea Urban District Council.

Medical Officer of Health, J. RAMSBOTTOM, M.B., Ch.B., D.P.H., who is also Medical Officer of Health, Tendring R.D.C and Acting M.O.H. Clacton-on-Sea and Frinton and Walton U.D.C., and Assistant County Medical Officer for the same areas.

Sanitary Inspector (Whole-time Officer) Mr. R. BOAST, A.R.I.C.S., Cert. S.I.E., J.B., also acts as Surveyor, Meat and Food Inspector and Officer under the Rats and Mice (Destruction) Act 1919.

Waterworks Manager Mr. I. S. PRIEST (Whole-time Officer)

LABORATORY FACILITIES.

Previous to September 1949 bacteriological work was carried out at Colchester, water and ice cream samples at the Counties Public Health Laboratory, London, and milk at Writtle, Chelmsford. Subsequently with the exception of chemical analysis of water and sewage examinations which are still sent to the Counties Laboratory, 66, Victoria Street, London, S.W.1., all investigations are carried out at the Public Health Laboratory, Borough General Hospital, Ipswich.

AMBULANCE FACILITIES. The Brightlingsea Ambulance is now under the control of the County as the Local Ambulance Authority

CLINIC & TREATMENT CENTRES.

A County Maternity and Child Welfare Clinic is held in the New Church School Room each Wednesday from 2 to 4.30 p.m.

During 1948 an Ante-Natal Clinic was commenced on July 1st on the first Thursday in each month from 2 to 4.30 p.m.

DIPHTHERIA IMMUNISATION.

Anti-diphtheria inoculations are carried out on the first Wednesday in each month at 10 a.m. also at the New Church School Room.

MIDWIVES AND NURSING HOMES.

In addition to the District Nurse Midwife there is also a midwife in private practice. There are no Nursing Homes in Brightlingsea.

Section C.

Sanitary Circumstances of the Area, including the Report of the Sanitary Inspector.

WATER SUPPLY.

There has been no change made in the water supply of the town. There are some 14 dwellings in the rural area still supplied by shallow wells, it is not practicable to get them on the main supply.

The main supply is from the new bore in Lower Park Road but the older wells are still in use. Bacteriologically the water is very good but as a further safeguard a minimum effective dose of chlorine is added.

Below are given the results of the most recent report of the analysis of the water together with those for 1947 and 1948.

Analysis	Parts per million		
	1947	1948	1949
Colour	Nil	Nil	Less than 10
Reaction pH.	7·5	7·5	7·5
Alkalinity as Calcium Carbonate	285	295	270
Hardness Temporary	195	200	120
Permanent	—	—	—
Total	195	200	120
Chlorine as Chlorides	250	264	240
Ammonia Free	1.3	0.85	0.84
,, Albuminoid	.014	Nil	0.022
Nitrogen in Nitrites	.01	Nil	Lell than 0.01
Nitrogen in Nitrates	Nil	Nil	Nil
Free C.O.2.	13	13	14
Oxygen absorbed in 4 hours at 27 C	.15	.35	0.45
Metals: Iron	.12	.10	0.54
Other Metals absent			
Fluorine			

It is very satisfactory to find that the chlorine content which showed a tendency to increase has actually fallen 20 parts per million during the year.

DRAINAGE AND SEWERAGE.

No work in this connection was carried out during the year.

RIVERS AND STREAMS.

Strictly speaking there are no rivers or streams in the district.

CLOSET ACCOMMODATION.

Houses with W.C's.	1580
Pail Closets	15
Houses with Cesspool Drainage	23

Most of the closets in the district are flushed by cisterns. There are still a certain number of hand flushed closets which should be provided with flushing cisterns if and when nuisances arise.

SCAVENGING.

Household refuse is collected weekly by direct labour and disposed of by controlled tipping on the Council's Refuse Dump.

SALVAGE.

Salvage is carried out in conjunction with scavenging and some 40 tons of salvaged materials have been collected during the year. For details see Sanitary Inspector's Report.

SWIMMING POOL.

Fresh salt water is pumped into the Pool at each tide and a complete change of sea water is made ever fortnight. Chloration is carried out during the busy season.

ERADICATION OF BED BUGS.

	Houses Infested	Houses Disinfested
Council Houses	NIL	NIL
Other Houses	1	1
Buildings other than dwelling Houses	NIL	NIL

SCHOOLS.

There are 2 Schools in the Urban District. The Junior School and the Senior School. These are periodically visited.

FACTORY ACTS 1937 AND 1948.

The 24 Factories on the Register at the end of the year under review received 48 inspections under the provisions of the Factories Acts. All defects found were brought to the notice of the occupiers. For details of inspection see the Sanitary Inspector's Report.

DETAILS OF INSPECTIONS.

Inspections for purposes of provisions as to health, including inspections made by the Sanitary Inspector.

Premises	No on Register	Inspections	Number of Written and Verbal Notices
Factories without mechanical power	4	8	—
Factories with mechanical power	20	40	6
	24	48	6

DEFECTS.

Particulars	Found	Remedied	Referred to H.M. Inspector
Want of cleaniness	4	4	—
Sanitary Conveniences :			
Insufficient	NIL	—	—
Unsuitable or defective	2	2	—
	6	6	—

Annual Report of the Sanitary Inspector 1949

I herewith submit my report on work carried out in accordance with the Sanitary Officers' Order, 1926, during the year 1949, as follows:

SANITARY INSPECTIONS.

Housing:	No. of Inspections
(a) General Inspections for repairs etc	32
(b) Under Housing Consolidated Regulations	4
(c) Reinspections	50
Overcrowding:	
(a) Houses measured for Form "B"	2
(b) Reinspections	4

GENERAL INSPECTIONS.

Bakehouses	10
Complaints received and investigated	62
Dairies and Milkshops	24
Disinfections	Nil
Factories and Workshops	48
Fish Friers	38
Food Stores	4
Hairdressers	5
Infectious Diseases	Nil
Public Houses	11
Public Conveniences	156
Rat Infestation	45
Refuse Disposal	17
Sanitary Conveniences	9
Schools	3
Sewers, Ditches, Drains and Cesspools	20
Shops	24
Slaughterhouses	4
Tents, Vans and Sheds	3
Verminous Premises	Nil
Water Supplies	12
	587
Informal Notices served	68

STATUTORY NOTICES SERVED

Housing Act	1
Public Health Act	Nil
Other notices	Nil

DEFECTS REMEDIED

Nuisances and defects found	61
Nuisances and defects remedied	53
Number outstanding at end of year	8

WATER SUPPLY.

Samples	Taken	Satisfactory
Public Supply	8	8
Private Sources	8	6

Routine samples of water were taken from the two sources of public supply at three-monthly intervals, and all proved satisfactory on analysis.

Two samples taken from private sources were unsatisfactory, and informal action was taken to secure provision of alternative supplies for drinking and domestic purposes.

DRAINAGE AND SEWERAGE

During the year a systematic survey of drains and sanitary accommodation in the older part of the town was commenced, and as the work proceeds, owners are being asked to carry out such works as are necessary to put the drains into proper and sanitary condition.

The principal defects found, so far, consist of:

(a) Complete absence of Inspection Chamber and other means of access to drain.

(b) Broken or unjointed pipes.

(c) Absence of suitable means for ventilation.

(d) Drain opening without trap, or with defective trap.

(e) Bad layout and inadequate fall.

All new drainage work is subjected to a stringent "water test" before being approved.

The town is sewered on the "combined" system and the sewers are generally in good condition, although relief sewers are needed at certain points to deal with "storm water" during very heavy rainstorms.

The sewage disposal works have been inspected at regular intervals, and although the treatment is only "partial" the resulting effluent has at all times been very satisfactory and quite suitable for discharge into a tidal estuary.

SANITARY CONVENIENCES

Efforts to eliminate defective or obsolete sanitary accommodation have been continued during the year, and owners are being asked to install modern type accommodation where possible.

PUBLIC CLEANSING AND SALVAGE

As in previous years, the high cost of dustbins has made it very difficult to secure renewal when existing bins become broken or defective.

Weekly collections of refuse from each house have been continued and some 40 tons of salvaged paper have been sold.

SHOPS ACT.

Routine inspections have been made under the above Act at six-monthly intervals and the general sanitary accommodation was satisfactory.

SMOKE ABATEMENT

No nuisances were caused by the emission of smoke during the year.

FACTORIES ACT

Each factory in the district was inspected twice, and the following defects were found :—

	No of defects
Limewashing of sanitary accommodation required	4
W.C. pans defective	2

Informal notices were served on the respective owners, and no formal action was necessary.

DESTRUCTION OF RATS AND MICE

No major infestation by rats or mice occurred during the year, and complaints of minor infestations were investigated and dealt with by the Council's Rat Catcher.

SCHOOLS

Each of the three schools was inspected twice during the year.

INSPECTION AND SUPERVISION OF FOOD

(a) MILK SUPPLY.

With the coming into force of the Milk and Dairies Regulations, 1949, all dairy premises were carefully surveyed and informal notices served where necessary, to ensure that such premises complied strictly with requirements of the Regulations. Upon completion of the various improvements and alterations, all seven daries and the seven dairymen were duly registered under the Regulations.

The result of bi-annual milk sampling, were as follows :

No. of Samples taken	Satisfactory	Unsatisfactory
13	10	3

One supplementary licence for the sale of pasteurised milk was issued.

(b) MEAT.

Routine inspections of butchers' shops and meat stores have been continued during the year, and premises are very satisfactory.

Occasional slaughtering under private licence has been carried out at two slaughterhouses, and all animals slaughtered under such licences have been inspected in accordance with Memos. 62 Foods, 62a/Foods, the Public Health Meat Regulations. 1924—1935, and the Slaughter of Animals Act, 1933.

(c) UNFIT FOOD.

The following meat was condemned as unfit for human consumption :

1 Pig's Pluck (Cirrhosis of Liver)
1 Pig's Head (Tuberculosis)
131 lbs. Beef (Bone Taint)

The undermentioned foods were also condemned :

12 stones Cod	(Decomposition)
6 stones Herrings	,,
7 stones Plaice	,,
31 lbs. Sugar	(Contamination)
30 lbs. Raisins	(Mildew)
2 tins Beans	(Blown or Perforated Tins)
1 ,, Honey	,,
2 ,, Grapes	,,
2 ,, LuncheonMeat	,,
29 ,, Evaporated Milk	,,
1 ,, Pastry Mix	,,
1 ,, Pate de Foie	,,

(d) ICE CREAM.

At the end of the year, one manufacturer of Ice Cream and twelve retailers were registered by the Council and all premises were inspected at regular intervals. Several of the retailers obtain supplies from manufacturers at Clacton, Colchester, or London, and most of the ice cream sold by them is in the form of wrapped blocks, although a certain amount is sold from one-gallon steel containers.

The use of approved hypochlorites for sterilisation of utensils and equipment has been encouraged, and results of analysis of samples were very satisfactory.

HOUSING

The general standard of housing in the district is good, although the extreme shortage of accommodation has made it necessary to permit occupation of houses which, under normal conditions, would be condemned. Several of the old houses in the town are without damp courses, and are constructed with 9" solid main walls which are sub-standard, especially in the case of red facing bricks which have "softened" through age. The rising and driving dampness in such houses cannot usually be remedied at anything like an economic cost, and the absence of site concrete aggravates the condition in many cases.

I am, Sir,
Your obedient servant,
R. BOAST. C.S.I.E.J.B., A.R.S.I., M.R.I.P.H.,
(Cert. Meat & Foods)
Sanitary Inspector.

Section D.

Housing

During 1949, 2 houses were erected by private enterprise, and 20 were built by the Council making altogether 22 additional houses in the district. At the end of 1949 there were 98 applicants on the waiting list for houses as compared with 76 in 1948.

Housing still remains the priniciple menace to public health. Two of the fundamental factors influencing the standard of living are housing and food together with the means of obtaining them. There is little doubt that the standard of housing as a whole is not improving. Houses are wasting assets and the balance between houses built and those demolished is not a true indication of the actual position. There are many houses standing and inhabited today which could not have been let two generations ago, yet they are housing sometimes more than one family. Owners whether councils or private cannot afford to be philanthropists and it would seem that some practical scheme, fair both to owners and occupiers might be devised, that, if not arrest, would delay the process of decay that occurs in all houses at an increasing rate according to their age and construction and which would prolong their life.

Further rents do not fall with the habitable fitness of a house and derelict houses can be and are let at rents out of all proportion to their value as dwellings.

It would appear that in a large number of houses only definite authoritative control could at the present time compel repairs on the one hand whilst on the other control rents according to a habitable standard of value whether up or down, until the happy position is reached when the number of houses is in excess of the demand, then the basic principles governing economy would come into play and force owners to keep up the standard of repair of their houses or compel them to accept lower rents with the ultimate prospect of being unable to let the property even to the worst type of tenant.

AIR RAID PRECAUTIONS and HOUSING.

The protection against aerial bombardment assumes great importance and is closely connected with housing. It would now appear that the immediate destruction from the atomic bomb explosion is mainly due to blast, and there is little doubt but that a well-constructed underground cellar or room some four feet below the surface level provided it were constructed to withstand the falling masonry would give the best chance of survival, even near the centre of the explosion. It would seem reasonable to assume that if it were made compulsory for all new houses to have such a basement structure, it would be the means of a great saving of life in case of aerial atomic bombardment.

Section E.

Inspection of Food

MILK SUPPLY.

The register shows that there were seven producers and ten retailers on October 1st 1949.

From that date the Ministry of Agriculture took over the Supervision of all dairy farms leaving the local authorities to supervise retail distribution only.

MEAT INSPECTION.

Routine slaughtering is not now carried out in Brightlingsea except under private licence. Particulars of meat and other foods inspected, see Sanitary Inspector's Report.

SHELLFISH (Mulluxan)

During 1949, 1,757,793 Oysters were marketed from Brightlingsea after passing through the cleansing tanks. This compares with :—

1948	2,044,741
1947	1,294,900
1946	2,325,364
1945	1,665,347
1944	943,082
1943	940,658
1942	809,600
1941	2,055,714
1940	2,021,293
1939	3,407,062

Section F.

Prevention of and Control over Infectious Disease.

The following figures show the number of infectious diseases notified in the District during 1949.

Whooping Cough	5	Measles	12
Puerperal Pyrexia	1	Jaundice	1

The present year is remarkable for the absence of notifiable diseases.

Epidemic Jaundice which for some years was so prevalent appears to have died out. Last year thirty cases were notified.

DIPHTHERIA PROPHYLAXIS.

The Urban District has now been free from diphtheria for six years in succession. The remarkable fall in the number of cases and deaths from Diphtheria can only be attributed to the anti-diphtheria inoculations now carried out. Unfortunately, it is not possible to give the proportion of children in Brightingsea inoculated against this disease since the Local Authority no longer carries out the treatment, but I believe it would compare favourably with the proportion existing in the County as a whole.

There is no doubt that the remarkable fall in the incidence of diphtheria is due to immunisation in infancy and childhood. Undue prominence has been made of the liability of infantile paralysis following whooping cough and diphtheria inoculation. The incidence of infantile paralysis has been high in this Country since the war, reaching a record of ·18 per 1,000 in 1947. Also the number of young children at ages most liable to infantile paralysis were and are receiving inoculations against diphtheria and whooping cough, therefore, there would be overlapping and on rare occasions a child, who when actually infected with the germ of infantile paralysis, although showing no evidence of the infection at the time might be likely to receive an inoculation. The inoculations in themselves cannot cause infantile paralysis, but during the negative phase which follows the injection and lasts for a short time only the child injected may and probably is less resistant to the infantile paralysis germ and consequently during an epidemic of this disease these inoculations, in a very small proportion of cases indeed, may be followed by infantile paralysis sometimes affecting the limb inoculated. This danger can be entirely avoided if these injections are postponed during an epidemic of infantile paralysis and so prevent creating any doubts as to the safety of these immunisations.

The same remarks apply to removal of tonsils in children. This operation unless absolutely necessary should be postponed if infantile paralysis is prevalent in the district in which the hospital is situated or where the patient resides.

It is very instructive to consider the National statistics relating to the prevalence of diphtheria since immunisation was adopted. The present low death rate is still more impressive when it is remembered that the great majority of the 85 deaths would be those of non-immunised children.

Year		Number of Cases	Deaths
* 1931—1940	.....	55,000	2,800
1940	.....	46,281	2,480
1	.....	50,797	2,641
2	.....	41,404	1,827
3	.....	34,662	1,371
4	.....	29,949	934
5	.....	25,246	722
6	.....	18,283	472
7	.....	10,465	244
8	.....	8,034	150
9	.....	1,897	85

Immunisation was adopted in 1939 and became fairly general from 1940 onwards.

* Average for the previous ten years.

TUBERCULOSIS.

During 1949 three new cases were notified as compared with two last year.

	Notifications			
	Pulmonary		Non-Pulmonary	
Ages	Male	Female	Male	Female
25—35	1	—	—	—
35—45	1	—	—	—
45—55	1	—	—	—

Likewise two deaths were registered the same as last year. Again being males.

Pulmonary	Non-Pulmonary
Male age 67 years	Male age 59 years

It is pleasing to note that there is no increase of tuberculosis in the Brightlingsea Urban District since the war. The two deaths represent the very low death rate of ·45 per thousand.

This is noteworthy since it is not general throughout the County and this disease is causing much anxiety in the northern industrial areas of England and also Scotland.

For 25 years previous to the war there had been a general and progressive fall in the deaths from this disease. The reverse was to be expected during war years, but after the war it would be reasonable to anticipate a resumption to the pre-war tendency. As stated rather the reverse has occurred in some areas, particularly in the North.

What are the causes of this variation in the same country? If this question could be definitely answered it would greatly help the fight against tuberculosis.

Apart from the difference in the climate, it would be interesting to investigate the differences in the hygienic circumstances and public health administration between this district and those areas where tuberculosis is rife.

Many factorss, social, economic, hygienic and biological affect the spread of tuberculosis, but the question resolves itself into the resistance of the individual to the bacterial infection on the one hand and the deadliness of the infecting agent on the other.

To raise the one or lower the other produces the improvement required and vice versa.

It would appear that too much attention is being paid at the present time to reducing suspected and known sources of infection to the exclusion almost of the investigation of the natural processes and circumstances which tend to raise the resistance.

Important factors with a beneficial influence upon the bacterial infection are adequate housing with the accompanying reduction of overcrowding, an adequate and correctly balanced diet, sufficient rest whether from work or pleasure. Further the biological processes by which the material resistance can be increased by the individual coming in contact with a non-effective dose of the infecting agent is as yet not thoroughly understood, but nevertheless does exist.

Tuberculous infection is widespread and the great majority of human beings are infected during life, but their bodily resistance to the germ overcomes it in the majority of cases and only an unfortunate few actually contract the disease. The means by which infection is conveyed is either direct contact with an infected tuberculous person or indirectly through dust, utensils or food, such as meat or milk which has become infected from a human or animal suffering from the disease. There would seem little doubt that the danger of obtaining a massive and consequently a perilous dose is when an individual is exposed to direct infection. Whilst it is evident, there are numerous sources of infection, yet at the present time so much stress is being laid upon tuberculous milk as the cause of tuberculosis that the general public has come to the conclusion that a tuberculous free milk supply means the end of tuberculosis, and conversely that the consumption of raw milk is the main, if not the only cause of the spread of this disease. This is unfortunate.

In this Urban District a very large majority of the inhabitants consume raw milk only, whilst in the large industrial areas where tuberculosis is actually increasing the milk supply is to a very large extent pasteurised or heat treated.

Is there possibly a danger that by chasing a shadow at the expense of the more essential factors in the control of this dread disease the substance may be lost ?

Increasing the natural and acquired resistance is equally if not more important than endeavouring to try and stamp out an infection which is universal. It would seem that if the liability of the individual to receive a dangerous massive dose can be controlled, the natural biological processes are capable of dealing with the smaller and ineffective doses.